

REMARKS

This preliminary amendment is filed in response to the Advisory Action mailed on June 10, 2005 and supplements the Applicants' after-final response mailed on March 29, 2005. This amendment is being submitted with a Request for Continued Examination (RCE) filed herewith. All objections and rejections are respectfully traversed. Reconsideration of the application is respectfully requested.

Please enter and consider the Applicants' after-final response mailed on March 29, 2005.

The Applicants respectfully request an interview with the Examiner before the next Office action is issued, in the event that the arguments presented in this response do not result in the application being allowed.

Claims 1-3 and 5-20 are pending.

Prior art rejections

At paragraph 5 in the final Office action mailed February 23, 2005, claims 1-3, 5-10, 12-13 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,628,661 to Goldman et al. (hereinafter "Goldman").

At paragraph 6 in the final Office action, claims 14-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Goldman in view of U.S. Patent No. 5,450,486 to Maas et al. (hereinafter "Maas").

The present invention, as set forth in representative claim 1, comprises in part:

1. (Original) A layer 2 switch, comprising:

a plurality of ports, at least one port of said plurality of ports capable of being set to a status of root guard protected (RG status);

first circuits for running the spanning tree protocol (STP) in said layer 2 switch, said STP capable of selecting said at least one port as either a designated port or as a root port;

second circuits for running root guard protocol, and said root guard protocol determining whether or not a port set to RG status has been selected by STP as a root port; and,

blocking circuits to set said at least one port into blocked status, said blocking circuits setting said at least one port into blocked status in response to said at least one port being both in root guard protected status and selected by STP as a root port.

In the non-final Office action mailed March 25, 2004, the Examiner equated the Applicants' claimed root guard protected (RG) status with Goldman's non-zero distance-to-core values. In their response dated June 23, 2004, the Applicants urged that the claimed RG status is a port-level status assigned on a per-port basis, whereas the non-zero distance-to-core values in Goldman are switch-level values assigned on a per-switch basis. Accordingly, the Applicants argued that the switch-level distance-to-core values in Goldman cannot anticipate or render obvious the claimed port-level RG status.

The Examiner modified his rejections in the final Office action dated February 23, 2005 to address the Applicants' arguments. In particular, the Examiner stated:

This non-zero distance-to-core value [in Goldman] is interpreted as the root guard status recited in claim 1. *When non-zero priority values are assigned to a switch to indicate the switch obtains a root guard protected status, all the ports that are associated with that switch will also considered to have root guard protected status* because a switch transmits and receives data via its ports. As a result, having a switch that has root guard protected status will teach/suggest that *all the ports will have root guard protected status*, which reads on the limitation “at least one port of said plurality of ports capable of being set to a status of root guard protected” as recited in claim 1.

Final Office action, “Response to Arguments” section at page 13 (emphasis added). *See also* final Office action at pages 8 and 11.

The Applicants urge that any switch connected as the Examiner suggests would be disconnected from the network and would not work. More particularly, a switch having all of its ports set to root guard protected status, as allegedly taught in Goldman, would essentially disconnect the switch from its computer network since the spanning tree protocol would set every possible root port to a blocked state. Indeed, if every switch port is set to RG status, then every time STP attempts to select a root port in accordance with Applicants’ claim 1, the selected port would be determined to be RG protected and therefore would be set to a blocked state (Applicants’ claim 1 explicitly recites *setting said at least one port into blocked status in response to said at least one port being both in root guard protected status and selected by STP as a root port*). In this manner, Goldman’s STP would successively block every port it attempts to select as a root port, until every possible root port is set to a blocked state, thereby essentially disconnecting the switch from the network’s spanning tree.

In the Advisory Action mailed June 10, 2005, the Examiner considered the Applicants' above-noted arguments, but nonetheless upheld the pending rejections:

“Although Goldman (sic) discloses the root port is in a forwarding state when it is operational, Goldman also discloses that a root port can switch from a forwarding state to a blocking state when a communication failure is detected on the root port (see col. 4, lines 13-26, 46-67). Therefore, a port which is both a root port and root guard protected can be set to a blocking state when a communication failure is detected at the root port. In light of this reasoning, the Examiner respectfully disagrees with the arguments made by the Applicants.”
(emphasis added)

As shown above, the Examiner acknowledges that Goldman teaches a root port in a forwarding state when the root port is operational. As noted, the Examiner's rejections are premised on the assumption that every port in Goldman is root guard protected. Thus, by this reasoning, Goldman's operational root port in a forwarding state must be a root guard protected port. As such, Goldman's operational root port is inconsistent with Applicant's claim 1, which explicitly recites ***setting said at least one port into blocked status in response to said at least one port being both in root guard protected status and selected by STP as a root port.***

In particular, the Applicants' claimed invention does not permit an operational root port to be set to a forwarding state and also be set to RG status. Rather, the Applicant's claim 1 explicitly recites blocking such a port. In contrast, the Examiner's interpretation of Goldman acknowledges that Goldman teaches an operational root port that is set to a forwarding state and also set to RG status. Because this scenario cannot occur according to Applicants' claim 1, the Examiner's interpretation of Goldman is incom-

patible with the Applicants' explicitly recited claim language. Accordingly, Goldman cannot anticipate or render obvious the Applicants' claim 1.

Moreover, the fact that the operational root port in Goldman later may switch from "a forwarding state to a blocking state when a communication failure is detected" does not remedy the deficiencies in Goldman. More specifically, because the Examiner interprets Goldman's operational root port as being both in a forwarding state and root guard protected, and such an operational port cannot exist in accordance with Applicants' claim 1, Goldman cannot teach or suggest Applicants' claimed invention, regardless of any further analysis of Goldman's non-operational root ports that have been blocked after a communication failure is detected.

Maas does not remedy the above-noted deficiencies in Goldman, and appears to be relied on solely for the purpose of disclosing a line card comprising a processor and a memory. *See* final Office action at page 12.

Based on the foregoing, the Applicants respectfully submit that independent claim 1, in its present form, is allowable over the cited art since neither Goldman or Maas, whether taken singly or in combination, anticipates or rendered obvious the Applicants' claimed *setting said at least one port into blocked status in response to said at least one port being both in root guard protected status and selected by STP as a root port*. Because claims 2-3, 5-19 comprise the same or similar patentable subject matter as independent claim 1, Applicants respectfully submit that these claims are also allowable for at least the same reasons.

At paragraph 8 in the final Office action, claim 20 was allowed.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account
No. 03-1237.

Respectfully submitted,



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